



## JRL-SOL SERIES ALL-IN-ONE LED SOLAR ROADWAY LIGHT

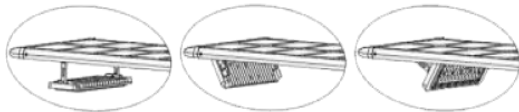
### Product Description

The JRL-SOL Series of Solar Roadway Lights features an all-in-one design function, low profile design, PIR/microwave motion sensor, and smart controller built in.

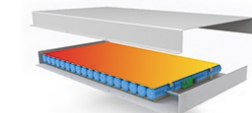
The Bifacial Solar Panel design is suitable for remote regions, and non-electricity supply zone. The deep cycle battery has a charge and discharge of over 2000 times. The JRL-SOL works continuously for 5-7 days in intelligent mode.

### Features

- Easy battery replacement design, can be renewed for 7 years.
- Ultra-high efficiency up to 50% consumption from traditional luminaires.
- Bifacial solar panels accomplishes an overall conversion efficiency of 30%.
- Unique anti-theft technology on battery door.
- Rotatable LED modules allows for best sunlight reception.
- Multiple installation methods allows for different applications like poles, wall, and surface.
- From 10 to 60 watts, can replace the traditional 35-240 watts, meeting all road application conditions.
- The 5 different types of lenses: 30°D, 60°D, 90° x 100°D, Type II, and Type III allows for different road lighting designs which adapts to various road conditions without wasting light output.
- PIR/microwave motion sensor and smart controller all built-in. AC and DC complementary, also USB power and alarm supply when in emergency use.
- Remote system control, security camera optional.
- Lumen efficiency up to 200lm/w on average, achieve higher illumination.



Conversion Rate up to 30% with Integral Monocrystalline Silicon Solar Panel



Lifespan Cycle More Than 2000 Times Intelligent Temperature Control

### Mounting Options & Accessories

- Slip Fitter (Adjustable), U-Shape Bracket, Adjustable & Direct Arm Mount
- Surveillance Camera / Bird Spike / 4KV SPD optional.

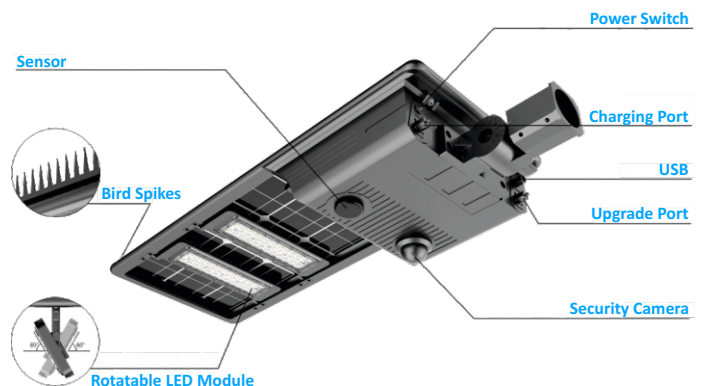
### Recommended Applications

- Roadways and Alleys
- Gardens and Courtyards
- Residential Properties
- Mining area and parking lot
- Areas with no-electrical supply

### Performance Summary

|                             |  |
|-----------------------------|--|
| Input Power                 | 10W/15W/20W/25W/30W/35W/40W/45W/50W/60W  |
| Efficacy                    | up to 200 Lms/W on average   |
| CCT Options                 | 3000K / 4000K / 5000K / 5700K / 6500K  |
| Construction                | Anti-UV thermosetting polyester / 80 micron epoxy primer + Anti-UV thermosetting polyester (for extremely corrosive environments)<br>Double crystal photovoltaic solar panel |
| Input Voltage               | 12-24VDC   |
| Ingress Protection          | IP65, according to standard EN 60529   |
| Mounting                    | Universal/Wall Mount/Round & Square Pole   |
| Certifications & Compliance | FCC / RoHS   |
| Lifetime Based on Tm21      | L70 @ 289,000 Hrs.   |
| Warranty                    | 5 years  |

Compliance





## SPECIFICATION SUBMITTAL DETAIL

|                    |  |       |
|--------------------|--|-------|
| Project Name/Type: |  | Date: |
| Catalog/Part #:    |  |       |

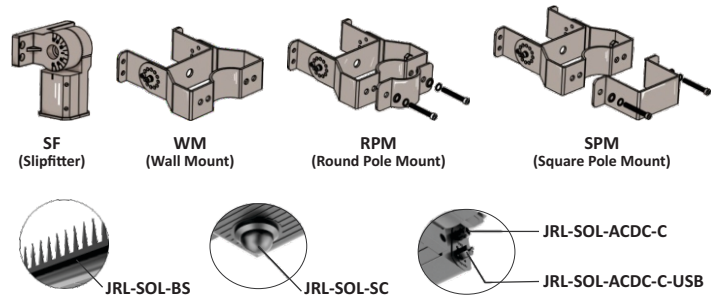
### JRL-SOL SERIES ALL-IN-ONE LED SOLAR ROADWAY LIGHT

Ordering Information / Example: **JRL-SOL-25W-18V-40K-T3-BK-SF**

| Product Series | Wattage   | Input Voltage              | CCT  | Light Distribution   | CRI                                  | Controls & Dimming   | Housing Color                           | Mounting Options  |
|----------------|---|----------------------------|--|--|--------------------------------------|--|---|---|
| <b>JRL-SOL</b> | 10W-18V<br>15W-18V<br>20W-18V<br>25W-18V<br>30W-18V<br>35W-18V<br>40W-18V<br>45W-18V<br>50W-18V<br><b>60W-18V</b> | <b>Blank</b><br>(12-24VDC) | 30K (3000K)<br>40K (4000K)<br><b>50K (5000K)</b><br>57K (5700K)<br>65K (6500K) | 30D (30-Degree)<br>60D (60-Degree)<br>90D (90 x 100-Degree)<br>T2 (Type 2)<br><b>T3 (Type 3)</b> | <b>Blank</b><br>(80 CRI)<br>Standard | <b>Blank</b><br>(PIR/microwave<br>motion sensor and<br>smart controller)<br>Standard | <b>BK</b><br>(Black Finish)<br>Standard | <b>SF (Slipfitter)</b><br><b>WM (Wall Mount)</b><br><b>RPM (Round Pole Mount)</b><br><b>SPM (Square Pole Mount)</b> |

#### Field Installed Options

| Model Number       | Description                              |
|--------------------|--|
| JRL-SOL-BS         | Bird Spikes                              |
| JRL-SOL-SC         | Security Camera                          |
| JRL-SOL-BIACS      | Bluetooth Intelligent APP Control System |
| JRL-SOL-ACDC-C     | AC&DC Complementary                      |
| JRL-SOL-ACDC-C-USB | AC&DC Complementary & USB Power          |



#### Electrical and Performance Data

| Model Number                       | JRL-10W-18V  | JRL-15W-18V | JRL-20W-18V             | JRL-25W-18V | JRL-30W-18V             | JRL-35W-18V | JRL-40W-18V             | JRL-45W-18V | JRL-50W-18V             | JRL-60W-18V     |
|------------------------------------|--|-------------|-------------------------|-------------|-------------------------|-------------|-------------------------|-------------|-------------------------|-----------------|
| <b>Wattage</b>                     | 10W  | 15W         | 20W                     | 25W         | 30W                     | 35W         | 40W                     | 45W         | 50W                     | 60W             |
| <b>Replaces</b>                    | 35W MH   | 35W MH      | 60-80W MH               | 60-80W MH   | 90-120W MH              | 90-120W MH  | 120-160W MH             | 120-160W MH | 160-200W MH             | 160-200W MH     |
| <b>Lumens (Lms)</b>                | 2,100  | 3,030       | 4,000                   | 4,950       | 6,060                   | 7,070       | 8,120                   | 9,000       | 9,900                   | 12,000          |
| <b>Efficacy (Lms/W)</b>            | 210  | 202         | 200                     | 198         | 202                     | 202         | 203                     | 200         | 198                     | 200             |
| <b>Input Voltage</b>               | 12-24V   |             |                         |             |                         |             |                         |             |                         |                 |
| <b>CCT</b>                         | 3000K / 4000K / 5000K / 5700K / 6500K  |             |                         |             |                         |             |                         |             |                         |                 |
| <b>Light Distribution</b>          | 30-Degree / 60-Degree / 90 x 100-Degree / Type II / Type III / Type IV Optic Options                               |             |                         |             |                         |             |                         |             |                         |                 |
| <b>Solar Panel</b>                 | 30W/18V  | 30W/18V     | 40W/18V                 | 40W/18V     | 50W/18V                 | 50W/18V     | 60W/18V                 | 60W/18V     | 70W/18V                 | 80W/18V         |
| <b>Battery Voltage</b>             | 12.8V  | 12.8V       | 12.8V                   | 12.8V       | 12.8V                   | 12.8V       | 12.8V                   | 12.8V       | 12.8V                   | 12.8V           |
| <b>Battery Watts</b>               | 153.6WH  | 153.6WH     | 230.4WH                 | 230.4WH     | 307.2WH                 | 307.2WH     | 384.0WH                 | 384.0WH     | 460.8WH                 | 537.6WH         |
| <b>Battery Charging Time (Hrs)</b> | 5.12   | 5.12        | 5.76                    | 5.76        | 6.14                    | 6.14        | 6.40                    | 6.40        | 6.58                    | 6.72            |
| <b>Operating Time</b>              | 15.36  | 10.24       | 11.52                   | 9.22        | 10.24                   | 8.78        | 9.60                    | 8.53        | 9.22                    | 8.96            |
| <b>Ingress Protection</b>          | IP65 Rated   |             |                         |             |                         |             |                         |             |                         |                 |
| <b>Installation Height</b>         | 10-20FT (3-6M)   |             | 16-23FT (5-7M)          |             | 16-26FT (5-8M)          |             | 20-30FT (6-9M)          |             | 20-33FT (6-10M)         | 23-40FT (7-12M) |
| <b>Max Dimensions (LxWxH)</b>      | 24.92" X 14.37" X 8.32"  |             | 31.22" X 14.37" X 8.32" |             | 37.32" X 14.37" X 8.32" |             | 43.43" X 14.37" X 8.32" |             | 55.83" X 14.37" X 8.32" |                 |
| <b>Controls &amp; Dimming</b>      | Photocell Sensor, Timing, Dimming, Intelligent Power Saving, Microwave Sensor, LoRa, NB-IoT Smart Lighting Control |             |                         |             |                         |             |                         |             |                         |                 |
| <b>Construction Materials</b>      | Die-Casting Aluminum, Anti-Corrosion Finish  |             |                         |             |                         |             |                         |             |                         |                 |
| <b>Lifetime</b>                    | 25 Years Lifespan (>50,000 Hrs)  |             |                         |             |                         |             |                         |             |                         |                 |
| <b>Warranty</b>                    | 3 Years (Up to 5 Years Upon Request)   |             |                         |             |                         |             |                         |             |                         |                 |

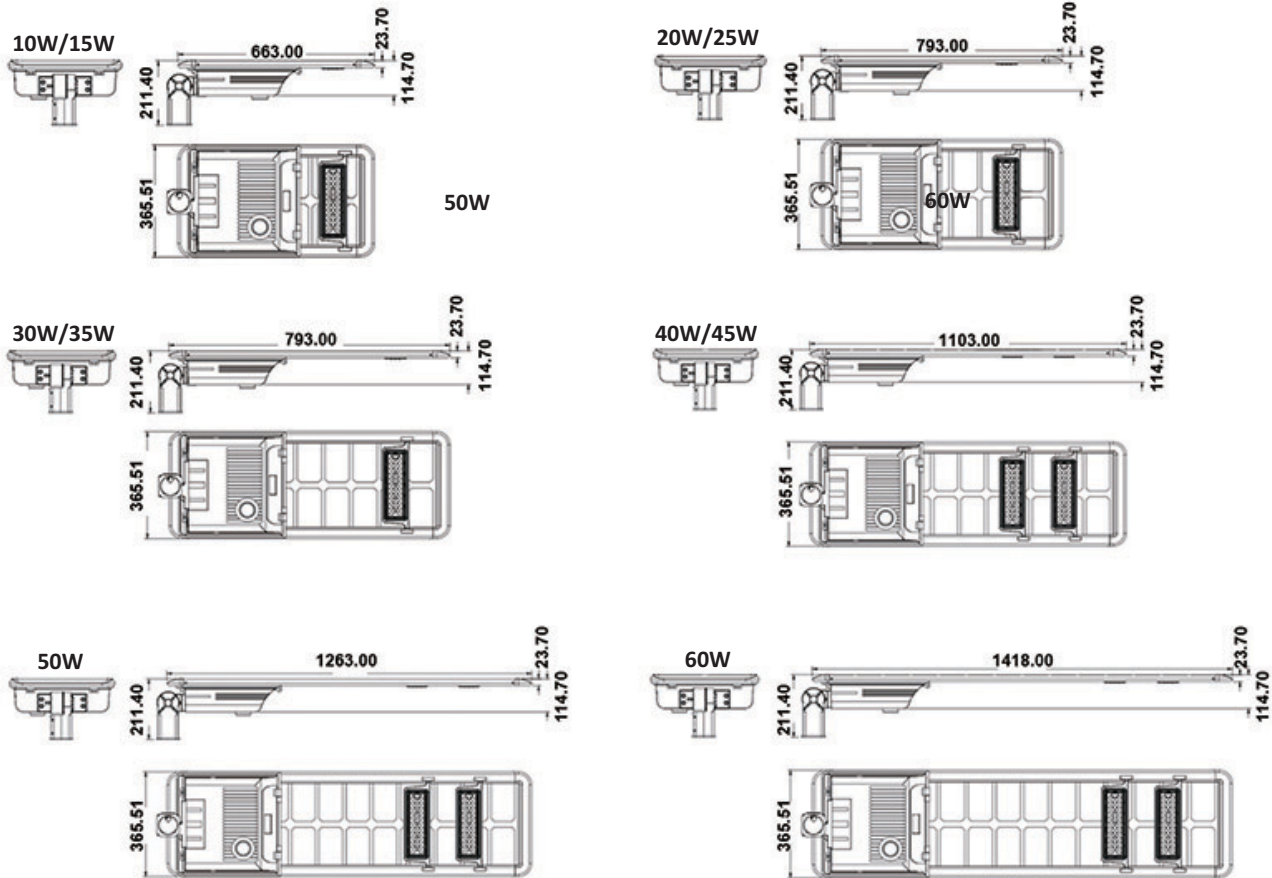


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Information contained herein is subject to change without notice.  
Values are nominal.  
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### Product Dimensions



| Product Series | Product Dimensions                                | Weight               |
|----------------|---|----------------------|
| JRL-SOL-10W    | 24.92" x 14.37" x 8.32" / 633mm x 365mm x 211.4mm | 25.3 lbs / 11.49 kgs |
| JRL-SOL-15W    | 24.92" x 14.37" x 8.32" / 633mm x 365mm x 211.4mm | 25.3 lbs / 11.49 kgs |
| JRL-SOL-20W    | 31.22" x 14.37" x 8.32" / 793mm x 365mm x 211.4mm | 28.4 lbs / 12.9 kgs  |
| JRL-SOL-25W    | 31.22" x 14.37" x 8.32" / 793mm x 365mm x 211.4mm | 28.4 lbs / 12.9 kgs  |
| JRL-SOL-30W    | 37.32" x 14.37" x 8.32" / 948mm x 365mm x 211.4mm | 32.8 lbs / 14.9 kgs  |

| Product Series | Product Dimensions                                 | Weight               |
|----------------|--|----------------------|
| JRL-SOL-35W    | 37.32" x 14.37" x 8.32" / 948mm x 365mm x 211.4mm  | 32.8 lbs (14.9 kgs)  |
| JRL-SOL-40W    | 43.43" x 14.37" x 8.32" / 1103mm x 365mm x 211.4mm | 36.4 lbs (16.5 kgs)  |
| JRL-SOL-45W    | 43.43" x 14.37" x 8.32" / 1103mm x 365mm x 211.4mm | 36.4 lbs (16.5 kgs)  |
| JRL-SOL-50W    | 49.72" x 14.37" x 8.32" / 1263mm x 365mm x 211.4mm | 38.8 lbs (17.61 kgs) |
| JRL-SOL-60W    | 55.83" x 14.37" x 8.32" / 1418mm x 365mm x 211.4mm | 43.3 lbs (19.66 kgs) |

### Intelligent Control System

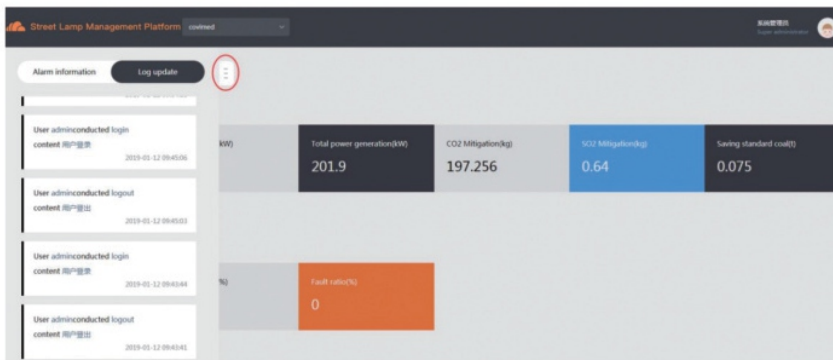
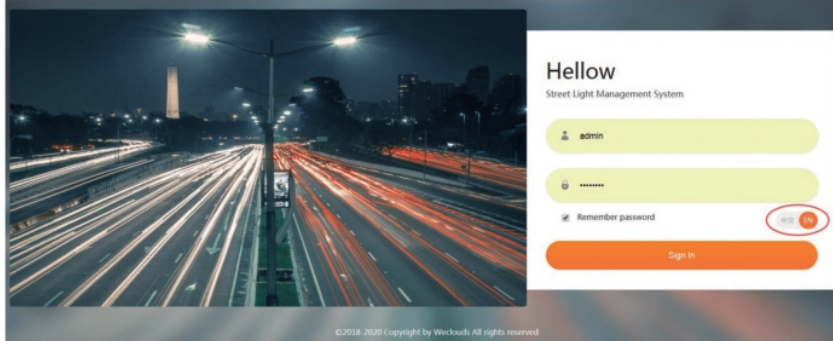
IoT perfectly combines traditional solar street lighting fixture, internet of things + wireless communication technology, achieve monitoring and management of remote background data, real-time understand the normal working status of each component of solar energy (street lights, photovoltaic panels, batteries, controllers), allow you to know the product usage on the client terminal that is thousands of miles away without leaving home or to manage the opening and closing of street lights and the adjustment of bright spot power on time.

More Information on page 4.

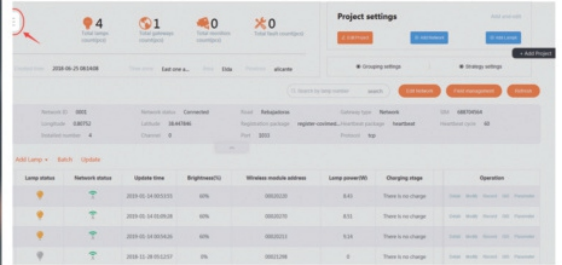


## Intelligent Control System

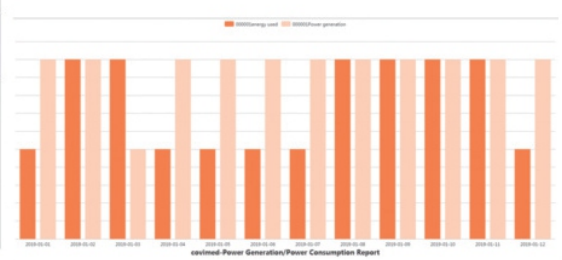
### SMART LIGHTING CONTROL SYSTEM



### DATA & PROJECT MANAGEMENT



| Lamp status | Network status | Update time         | Brightness(%) | Wireless module address | Lamp power(W) | Charging stage     | Operative |
|-------------|----------------|---------------------|---------------|-------------------------|---------------|--------------------|-----------|
| 🟡           | 🟢              | 2020-02-24 09:02:03 | 40%           | 8802020                 | 5.5           | There is no charge | 👉 📄 🔄 🗑️  |
| 🟡           | 🟢              | 2020-02-24 09:02:08 | 40%           | 8802070                 | 5.5           | There is no charge | 👉 📄 🔄 🗑️  |
| 🟡           | 🟢              | 2020-02-24 09:02:06 | 40%           | 8802011                 | 5.5           | There is no charge | 👉 📄 🔄 🗑️  |
| 🟡           | 🟢              | 2020-02-28 09:02:07 | 4%            | 8802008                 | 0             | There is no charge | 👉 📄 🔄 🗑️  |



- The solar street light management system can pre-set one or more lighting modes according to the different time of day and traffic flow, automatically turn on or off any light, and adjust the switching time and illumination according to environmental requirements to achieve the purpose of energy-saving and consumption reduction.
- The integrated system is mainly composed of a street light component a centralized controller, a single light controller, and a smart cloud platform. The centralized controller and the single light controller aggregate the data collected by the single light via the GPRS/NB-IOT wireless communication network. The centralized controller uploads data to the system cloud platform through GPRS data flow, providing data dependence for mobile phone and computer terminal access.



#### Remote and Real-Time Monitoring

With wireless communication function, through the intelligent management system of solar street lamp and wireless module, have remote monitoring and real-time monitoring.



#### Automatic Fault Alarm

Real time monitoring of solar panel voltage, current, power, battery charging and discharging current, voltage, load working state, controller working state data and fault automatic alarm.



#### Remote Control

Support remote switch on and off dimmer and battery, load parameter modification.



#### Fault Tracking and Precise Positioning

Multi peak PWM technology, suitable for partial shading or partial damage of photovoltaic cells, and the tracking efficiency is more than 99%.



#### Map Location

Using GPS maps, with geographic display capabilities.



- Built-in IoT module (GPRS/ NB-IOT)
- Adopt Moving Track MPPT maximum power tracking technology, with higher tracking efficiency and faster speed;
- Lead-acid battery and lithium battery are universal. Operating parameters can be set by remote controller;
- ultra Green power control technology with extremely low static power consumption and dormant current;
- Lead acid battery multi-stage temperature compensated constant voltage charging;
- 10 Programmable load power/time control setting;
- Battery charging and discharging high and low temperature protection function, working temperature can be set;
- A variety of intelligent modes can be selected, automatically adjust the load power according to the battery power;
- High precision digital booster constant-current control algorithm, high efficiency and high constant-current precision;
- 2.4G wireless communication, can set read parameters, read status, etc;
- Battery/PV reverse connection protection, LED short circuit/open circuit/limited power protection and other multiple protection functions



**CONTROLLER  
GPRS/NB-IOT INSIDE**

